

Applicant	: Nai-Kong CHEUNG	Atty. Dkt. #	: 639-C-PCT-US
USSN	: 10/565,484	Art Unit	: 1623
Filed	: January 17, 2006	Date of Office Action:	: June 16, 2009
Examiner	: Eric Olson	Date of Response	: September 9, 2009
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#### **REMARKS**

Claims 14-17, 19-25 and 27-29 are pending in the application. In order to expedite the prosecution of the application, and without conceding the position of the Examiner, Applicant has amended claims 17 and 25.

Applicant submits that there is no issue of new matter, and respectfully requests entry of the Amendment. Upon entry of the Amendment, claims 14-17, 19-25 and 27-29 will be pending and under examination in the application.

#### **Rejection Under 35 U.S.C. § 112, first paragraph**

In the June 16, 2009 Office Action (pages 3-4), the Examiner rejected claims 17 and 25 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement because "the disclosure never specifically discloses soluble  $\beta(1,3)(1,6)$  glucans that induce cytokines."

In response, Applicant has amended claims 17 and 25 not to recite "and is capable of inducing cytokines." Accordingly, Applicant respectfully requests that the rejection of claims 17 and 25 under 35 U.S.C. § 112, first paragraph, be withdrawn.

#### **Rejection Under 35 U.S.C. § 102(e)**

In the June 16, 2009 Office Action (pages 4-6), the Examiner rejected claims 14-16, 19-24 and 27-29 under 35 U.S.C. § 102(e)

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as being anticipated by Ross et al. (U.S. application publication 2006/0009419).

In response, Applicant respectfully traverses the rejection. MPEP 706.02(IV) states that:

"[F]or anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not taught must be inherently present."

Applicant submits that Ross et al. discloses "methods of using neutral soluble  $\beta$ -(1,3) glucan (NSG)" [0011]. The glucan appears to be also called PGG [0097]. "Methods of producing NSG are known in the art and are disclosed in U.S. Patent No. 5,322,841" [0091].

Patent No. 5,322,841 (Jamas et al.) discloses "a method for producing soluble glucan (also referred to as PGG)" (column 1, lines 33-34). PGG stands for poly-(1-6)- $\beta$ -D-glucopyranosyl-(1-3)- $\beta$ -D-glucopyranose (column 2, lines 4-6).

In another patent by Jamas et al. (Patent No. 5,622,939), Figure 1 shows the general structure of NSG "as being a linear  $\beta$ (1-3)-linked glucose polymer having periodic branching via a single  $\beta$ (1-6)-linked glucose moiety" (column 3, lines 64-67).

Therefore, it is clear that NSG (or PGG) is a  $\beta$ -(1,3) glucan with branches of single glucose units. This structure is also supported by the nomenclature of the glucan, which is poly-(1-6)- $\beta$ -D-glucopyranosyl-(1-3)- $\beta$ -D-glucopyranose. In contrast, the claimed glucan comprises a  $\beta$ -1,3 backbone and at least one  $\beta$ -1,3

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side chain of two or more glucose units linked to the backbone by a  $\beta$ -1,6 glycosidic bond. As such, the reference does not anticipate the claimed invention. Accordingly, Applicant respectfully requests that the rejection of claims 14-16, 19-24 and 27-29 under 35 U.S.C. § 102(e) be withdrawn.

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### CONCLUSION

Applicant contends that this Proposed Amendment has fully addressed the Examiner's rejections discussed in the June 16, 2009 Office Action, and should not raise additional issues. Therefore, this application is in full compliance with all requirements. Accordingly, Applicant respectfully urges the Examiner to place this application in conditions for allowance.

If a telephone interview would be of assistance in advancing the prosecution of the subject application, Applicant's undersigned attorney invites the Examiner to telephone him at the number provided below. If any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-1891.

Respectfully submitted,

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